Electronic Grants Management Report

**Related to the Cost-Benefit Study
Required by Senate Bill 1458 to Establish an
Electronic Grants Management System**

DIR

Department of Information Resources
Program Management Office

**February 28, 2002
Austin, Texas**

Contents

Executive Summary

Senate Bill (SB) 1458, enacted in the 77th Legislature, created the Program Management Office within the Department of Information Resources (DIR).[1] The Program Management Office (PMO) is responsible for providing an enterprise approach to the development and deployment of electronic government projects. Section 4.05 of SB 1458 addresses electronic grants management and tasks DIR with studying the costs and benefits of establishing an electronic grants management system for a state grant program. DIR was appropriated $500,000 in funding and one full-time equivalent position to perform an electronic grants management study. To date, the Comptroller of Public Accounts has not certified funding for DIR for the PMO's electronic grants management study.

In Spring of 2000, the Governor's Office created the Electronic Grants Technical Assistance Workgroup (EGTAW). On July 19, 2001, EGTAW requested a presentation by the PMO director on the plans for the $500,000 funding. Since it is unknown when the Comptroller will certify funds for the PMO, EGTAW and the PMO agreed to proceed with a report using resources from the EGTAW membership and leveraging the work that had been completed by EGTAW to date.

This document, the *Electronic Grants Management Report: Related to the Cost-Benefit Study Required by SB 1458 to Establish an Electronic Grants Management System,* is based on interviews with members of EGTAW, including member agencies who have implemented an electronic grants management system, documentation from the efforts of EGTAW to date, including the Electronic Grants Technical Assistance Workgroup Business Plan, and the Comptroller's December 2000 report, *Smaller, Smarter, Faster Government.*[2]

EGTAW's Vision

Representatives from numerous Texas state agencies that disburse general revenue and federal pass-through funding participate on the EGTAW. In its *Action Plan,* EGTAW defines its framework for a single, state-level, one-stop electronic system for grant assistance programs.[3] EGTAW identified the following goals to guide its vision:

- Establish a common face for state-level grant assistance programs

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[1]   TEXAS GOV'T CODE ANN. § 2055 (Vernon 2002).

[2]   State of Texas, Comptroller of Public Accounts, *E-Texas: Smaller, Smarter, Faster Government* (Volume 1), Austin, Texas (December 2000).

[3]   State of Texas, Electronic Grants Technical Assistance Workgroup, *Action Plan* (February 2001). Retrieved February 28, 2002, on <http://www.dir.state.tx.us/peso/egrants/031501draftplan.html>.

- Ensure consistent quality service to all customers
- Ensure efficient use of human and fiscal resources
- Improve information sharing among agency participants

Background Information

Grants management is extremely complex in Texas, and developing a single solution to meet the needs of more than 35 agencies with diverse requirements will be a time-consuming and challenging effort. These agencies provide grant-funding opportunities to individuals, businesses, state and local government entities including public school districts, counties, cities, institutions of higher education, and nonprofit organizations.

The major processes for grants are application, eligibility requirement, award and notification, issuance and monitoring, progress review, and funding closeout requirements. Each agency typically has multiple complex procedures for each type of grant offered. To further complicate matters, grant processes and procedures differ greatly among agencies.

Exchange of information is required throughout the grant process lifecycle from the notification of availability of funds through the award. Lifecycles of grants can vary widely among agencies; even a single agency can have multiple grant lifecycles. Administering these diverse programs and complex processes consumes substantial time of both the grant applicant and agency personnel.

Preliminary Findings

Preliminary research information gained from interviews, work sessions, and reports was extremely valuable regarding the vision, goals, and objectives of EGTAW. However, information required from a technical perspective was not available. In order to perform a detailed study of the costs and benefits of an information system solution, such as a single integrated statewide electronic grants management system, specific information about the existing system, business requirements, technical requirements, reporting requirements, processing requirements, system users, end users, clients, transaction volume, etc., is required. Since this information was not available, this report does not provide a detailed technical perspective of the costs and benefits associated with implementing an integrated electronic grants management system.

Recommendation for a Near-Term Solution

Based on the research information, analysis performed of the grants management processes, and meetings held with members of EGTAW, the following recommendation is made:

Implement a centralized, searchable database front-end solution for grants management that will allow a grant seeker to find grants using keyword searches, obtain grant application information, and determine high-level eligibility requirements of the grant offering. Provide a link to the grant-providing agency's Web site for the grant seeker interested in completing an application or gaining more information about the grant.

Access to this database should be made available through the TexasOnline portal to provide a common access point for grant constituents seeking grant opportunities across the state. Specific hosting options for the database will need to be explored.

Recommendations for Achieving EGTAW's Vision

Without funding for DIR's full study, the only way to move forward is for EGTAW to continue with its efforts. Should EGTAW choose to continue without the benefit of results from a comprehensive study, DIR recommends the following actions for EGTAW's consideration:

- Continue the EGTAW effort to determine if a simplified, integrated and efficient state level Web-based common face for grant assistance programs can mutually benefit the people and government of Texas.

- Add leadership and workgroup members with business process re-engineering, full software lifecycle development, and technical experience to EGTAW.

- Interview the grant constituent population to gain their perspective on opportunities for process improvement.

- Identify agencies that currently have an integrated grant system and determine if any of the existing systems can be used as a model for other agencies.

- Perform an assessment of the PeopleSoft Grants Management module to determine the costs and benefits of implementing PeopleSoft Grants Management as a statewide electronic grants management solution in order to leverage the state's existing investment in PeopleSoft applications.

- All grant-providing agencies should develop "As Is" models of the grant application, eligibility determination, award, and management processes.

- Once the "As Is" models are completed, the agencies should collectively develop a "To Be" model of the grant application, eligibility determination, award, and management processes.

- In combination with adding appropriate software professionals to EGTAW, it is also recommended that the workgroup implement a structured methodology for analyzing, developing, and implementing automated systems.

Background Information

Senate Bill (SB) 1458, enacted in the 77th Legislature, created the Program Management Office within the Department of Information Resources (DIR).[4] Effective June 15, 2001, the Program Management Office (PMO) was established within the DIR. The PMO is responsible for providing an enterprise approach to the development and deployment of electronic government projects. SB 1458 defines an "electronic government project" as "the use of information technology to improve the access to and delivery of a government service, including a project that uses the Internet as a primary tool for the delivery of a government service or performance of a governmental function." The PMO is charged with directing and facilitating the implementation of electronic government projects.

Section 4.05 of SB 1458 addresses electronic grants management and tasks DIR with studying the costs and benefits of establishing an electronic grants management system for a state grant program. As of September 1, 2001, DIR was appropriated $500,000 in funding and one full-time equivalent (FTE) position to perform an electronic grants management study. This funding is contingent on the Comptroller of Public Accounts certifying that additional revenues, above the appropriations bill, are available. To date, the Comptroller has not certified funding for DIR for the PMO's electronic grants management study.

In the Spring of 2000, the Governor's Office created the Electronic Grants Technical Assistance Workgroup (EGTAW). Members from EGTAW were asked to provide information related to the study of an electronic grants management system. The cooperation, contribution, expertise, and efforts of EGTAW made this report related to establishing an electronic grants management system possible.

On July 19, 2001, EGTAW requested a presentation by the PMO director on the plans for the $500,000 funding. Since it is unknown when the Comptroller will certify funds for the PMO, EGTAW and the PMO agreed to proceed with a report using resources from the EGTAW membership and leveraging the work that had been completed by EGTAW to date. Representatives from the following agencies agreed to help with the report:

- Texas Department of Health (TDH),
- Texas Natural Resource Conservation Commission (TNRCC),
- Texas Education Agency (TEA),
- Texas Commission on the Arts (TCA), and
- Texas Higher Education Coordinating Board (THECB).

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[4] TEXAS GOV'T CODE ANN. § 2055 (Vernon 2002).

This document, the *Electronic Grants Management Report: Related to the Cost-Benefit Study Required by SB 1458 to Establish an Electronic Grants Management System (Electronic Grants Management Report),* is based on interviews with members of EGTAW, including member agencies who have implemented an electronic grants management system, documentation from the efforts of EGTAW to date, including EGTAW's *Action Plan,*[5] and the Comptroller's December 2000 report, *Smaller, Smarter, Faster Government.*[6]

We greatly appreciate the assistance of the Governor's Office and members of EGTAW. Interviews with Laura Wiegand, one of the EGTAW members who has successfully implemented a comprehensive grants management re-engineering project for TCA, provided significant insight in the preparation of this document relating to grants management business processes and detailed technical requirements. Denise Francis and Susan Walsh (Governor's Office); John Janak (TNRCC); Earin Martin (TEA); and Joe Schriever (TDH) participated in all of the research and brainstorming meetings and provided valuable input and essential information for this report related to the electronic grants management study.

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[5] State of Texas, Electronic Grants Technical Assistance Workgroup, *Action Plan* (February 2001). Retrieved February 28, 2002, on <http://www.dir.state.tx.us/peso/egrants/031501draftplan.html>.

[6] State of Texas, Comptroller of Public Accounts, *E-Texas: Smaller, Smarter, Faster Government* (Volume 1), Austin, Texas (December 2000).

Texas Grants and EGTAW's Vision

State Funding

Grants management is extremely complex in Texas, and developing a single solution to meet the needs of more than 35 agencies with diverse requirements will be a time consuming and challenging effort. These agencies provide grant funding opportunities to individuals, businesses, state and local government entities including public school districts, counties, cities, institutions of higher education, and nonprofit organizations. These funding opportunities are awarded through the following types of financial assistance:

- Grants
- Loans
- Contracts
- Competitions
- Other forms of agreement

Funding is promoted through a variety of areas of interest including, but not limited to, the following:

- Agriculture
- Art/Cultural and Humanities
- Community and Economic Development
- Education
- Employment
- Equal Opportunity/Access for Disabled
- Health and Human Services
- Libraries
- Mental Health and Drug Abuse
- Natural Resources and Environmental Conservation
- Public Protection and Rehabilitation for Offenders
- Recreation and Sports
- Science and Engineering Research
- Transportation
- Wildlife and Animal Protection
- Youth Development

Within each category of opportunities the state promotes, there are a variety of grants offered:

- Block grants
- Competitive grants
- Non-competitive discretionary grants
- Entitlement grants
- First-come, first-served grants
- Rosters and other non-dollar grants opportunities

Since the definition of a grant is interpreted differently among state agencies, EGTAW has developed a definition for their purposes. To EGTAW a "grant" means an award of financial assistance, including cooperative agreements, in the form of money, property in lieu of money, loans, contracts, or other financial assistance paid or furnished by the state or federal government to carry out a program in accordance with rules, regulations, and guidance provided by the grantor agency.

Processing

The major processes for grants are application, eligibility requirement, award and notification, issuance and monitoring, progress review, and funding closeout requirements. Each agency typically has multiple complex procedures for each type of grant offered. To further complicate matters, grant processes and procedures differ greatly among agencies.

The exchange of information is required throughout the grant process lifecycle from the notification of availability of funds through the award. Lifecycles of grants can vary widely among agencies; even a single agency can have multiple grant lifecycles. Administering these diverse programs and complex processes consumes substantial time of both the grant applicant and numerous agency personnel.

Eligibility requirements are as unique as the individual grants themselves. Typical eligibility restrictions, which can be "required" or "exceptions," include the following:

- Applicant type (individual, nonprofit, for profit, Independent School District, consortia, governmental entity)
- Geographic restrictions by city, county, region, or by specific zone (i.e., nesting ground of bird, watershed, border community, etc.)
- Types of services provided by applicant organization
- Ethnicity (organization: board, staff, individual)
- Special populations (criminal justice, physically disabled, educationally disadvantaged, low income, etc.)
- Fiscal health of individual/organization
- Incorporated in Texas/Texas resident

- Matching funds requirements (e.g., for each state dollar, the applicant must provide a matched amount)
- Invitation only
- Solicited vs. unsolicited

EGTAW's Vision

Representatives from numerous Texas state agencies that disburse general revenue and federal pass-through funding participate on the EGTAW. In its *Action Plan,* EGTAW defines its framework for a single, state-level, one-stop electronic system for grant assistance programs. EGTAW identified the following goals to guide its vision:

- Establish a common face for state-level grant assistance programs
- Ensure consistent quality service to all customers
- Ensure efficient use of human and fiscal resources
- Improve information sharing among agency participants

Research Methodology

Two meetings were held with EGTAW to gain insight and gather research information from the workgroup for this report. In addition to providing assistance in defining the scope of the report, EGTAW members were asked to provide assistance in the areas of background and research information, survey results, and grant business processes.

On September 6, 2001, the first meeting to gather information for the *Electronic Grants Management Report* was held with DIR and EGTAW. Representatives from TNRCC, TEA, THECB, the Governor's Office, TCA, DIR, and TDH attended the first meeting. The agenda included discussion topics to gain information about EGTAW's efforts to date for implementing an integrated electronic grants management system and questions to facilitate the information gathering process. The agenda included standard system development questions such as the following:

- What is the Purpose or Mission Statement?
- What is the Scope of the project?
- What are EGTAW's Goals and Objectives?
- Who are the Stakeholders, End Users, Customers, Support Personnel?
- Who are the Decision Makers?
- Is the Project Funded?
- Has a Cost-Benefit Analysis Been Completed?
- Are there any Constraints?
- Do we need to make any Assumptions?
- What are our Alternatives?
- Does the project have agency Executive support?
- What are the Timelines?
- Is there a Go/No Go Decision Timeline?
- What are the High-Level Functional Requirements of the Existing System?
- What are the High-Level Functional Requirements of the New System?
- What is the Level of Importance/Priority of this project?
- Other questions to answer to complete the report:
  Do we really need the system? What would the consequences be if we did not develop this system? In what direct or indirect ways will the system contribute to our mission and business objectives? What critical processes must the system support? What critical processes need not be supported by the system? How will the system affect other systems that are already installed? What are the likely technology limitations that we face? Can a useful system be developed for the budget available? How will we know we are successful? What are the critical performance measurements?

EGTAW members thought that a number of these questions could be answered from the draft of its *Action Plan,* completed in February 2001. It was agreed that the draft would be provided to DIR, and that a subsequent meeting should be scheduled to discuss the information in the business plan and develop a scope for this report.

A second meeting was held on September 17, 2001, to continue to gather research information and discuss in detail the scope of the electronic grants management study required by SB 1458. EGTAW attendees included the Governor's Office, TNRCC, TEA, TDH, and TCA. The question of "what problem are we trying to solve?" was presented to the group for discussion.

EGTAW and DIR agreed that in order to facilitate the delivery of an effective cost-benefit study that addresses major internal issues, a comprehensive feasibility study and an extensive research effort would be required. Some of the tasks required for a detailed study of this level could include, but are not limited to, the following:

- Identify all Texas agencies that offer grants
- Inventory all grant programs offered in the state
- Interview grant constituents to gain their perspective for process improvement
- Identify common constituent populations among the various agencies
- Identify agencies with integrated grant systems and determine if any existing systems can be used as a model for other agencies
- Identify agencies with similar grant processes
- Identify agencies with unique processes
- Define business processes and procedures associated with each grant process
- Identify legislatively-mandated processes which may have an impact on the electronic grants management initiative

Since much of this work has not been completed for all agencies that process grants, EGTAW and DIR agreed to try to identify problems that were common to and/or opportunities that would be beneficial to all grant-providing agencies. Opportunities were categorized as either internal or external to the agencies' core grant processes.

The following problems/opportunities were identified in the work session:

1. Avoid duplication in paper processing among agencies and among grant programs (internal)
2. Provide grant seekers one centralized resource to find grant opportunities (external)
3. Provide grant seekers with keyword search capability to search all grant opportunities available through the state of Texas (external)
4. Provide one central location for grant seekers to find out how to apply for a grant (external)
5. Provide one central location for grant seekers to find eligibility requirements for a specific grant (external)

Information regarding the vision, goals, and objectives of EGTAW gained from these interviews, work sessions, and existing reports was extremely valuable to the preparation of this report. Information required from a technical perspective was not available. In order to perform a detailed study of the costs and benefits of an information system solution, such as a single integrated statewide electronic grants management system, specific information about the existing systems, business requirements, technical requirements, reporting requirements, processing requirements, system users, end users, clients, transaction volume, etc., is required. Since this information was not available at the time this report was prepared, this report does not cover a detailed technical perspective of the costs and benefits associated with implementing an integrated electronic grants management system.

EGTAW needs to increase the level of participation of personnel skilled in the areas of business process re-engineering and software development. At this point in the project lifecycle, strong business process re-engineering leadership and technical representation are needed to facilitate the level of information gathering and analysis required to determine if a single integrated statewide electronic grants management system is a valuable and feasible solution for the state.

A broader scope to determine individual agency requirements should be incorporated into the EGTAW vision if a single system is to be developed. Future efforts to study EGTAW's vision of an integrated grants management system need to explore and consider not only the impact of a front-end solution but also of the impact to back-end processing. For instance, if it is determined that a single system is a viable solution where all of the grantee's application data is collected, processed, and stored in a central repository for all agencies, information will still need to be exchanged with the grant-providing agency. If information is being exchanged from the central system to each of the individual 35-plus agencies, standardized data exchange formats will be required. Even with a single front-end solution, it may still be necessary for agencies to operate their internal grant systems in order to track and manage their individual grant processes. Back-end processing requirements are often neglected during the conceptual and analysis phases of a project lifecycle. Efforts to study the back-end processing requirements of an integrated grants management system must be considered to determine the full impact of the costs and benefits of this solution.

In addition, if existing internal systems are maintained, interfaces between the central and internal systems will need to exchange data. This data exchange will occur across various databases using multiple software and hardware platforms. Customized scripts for each stage in the grant cycle (application process, revised budget process, periodic reporting tied to funding increments, final reporting/evaluation) may be necessary. For instance, in

the payment process, some agencies pay grantees in a lump sum while other agencies make payments to grantees incrementally over time, usually tied to a reporting process. This may be a function that only the internal system will perform, but in order for the internal system to function properly information must be exchanged with the central system. All of these processes must be considered by EGTAW during its analysis.

It is important to note that many of the granting agencies have multiple grants-management-tracking databases for their different grant programs as well as very specific coding and complex reporting requirements. Furthermore, internal grants management systems typically maintain extensive historical data that may not be feasible to convert or maintain in a central system solution. Extensive research on the requirements for historical data should also be performed. Without the proper solution, archiving, converting, maintaining, updating, and accessing historical grants management data for more than 35 state agencies could independently become cost prohibitive.

Constraints of conducting a full study are described below. The workgroup identified problems/opportunities that created minimal impact to the individual agency grants management application systems, and yet still provided significant benefits to grant-providing agencies and constituents.

Constraints

- Current efforts to assess a statewide grants initiative are solely voluntary. There is no legislative support or funding allowing agencies to pursue in an integrated grants management solution. Current federal efforts are being driven by Public Law 106-107.[7] The Interagency Electronic Grants Committee (IAEGC) was established to coordinate, promote, and facilitate the effective use of electronic commerce throughout the federal grants community. IAEGC is working to bring federal grant processes together in a one-stop Internet portal. Major goals are to eliminate multiple application forms and to establish a single Web site that grant-seekers can use to check on the status of multiple grant proposals. The Office of Management and Budget (OMB) has oversight responsibilities and approval authority of grant forms used by federal agencies. OMB requires federal government agencies that manage grants be standardized, facilitating the transition to a common grants management process—in contrast to Texas state agencies that currently do not have a grant-oversight agency and are not standardized. However, the federal grant system is in its third pilot year and has yet to be a model of success. Until Texas has a similar mandate, combined with the required financial and staffing resources, it will be extremely difficult for EGTAW to assess the feasibility and benefits of a centralized single, state-level, one-stop electronic system for grant assistance.

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[7] Federal Financial Assistance Management Improvement Act of 1999, Public Law 106-107, 106th Congress.

- Financial and human resources to perform the appropriate level of research and conduct a comprehensive feasibility study are limited. A thorough and detailed assessment is needed to determine the full impact to the state of an integrated grants management system. Currently that level of study has not been funded. It will be extremely expensive and time consuming to determine if a "statewide, integrated" approach will be beneficial or cost effective to the agencies and their constituents. To move forward without additional resources, EGTAW must foster executive-level understanding of the tasks that must be completed by every agency processing grants and a commitment that each participant will complete the necessary tasks. Consideration must also be given to the provision for the ongoing maintenance and records management required of a centralized electronic grants management system.

- Developing a single statewide solution across more than 35 diverse agencies with varying types of grants, application processes, legislative, business, and technical requirements will be impossible without executive-level support and commitment for funding and resources. For instance, the Arts Commission, a small agency with 20 FTEs, offers at least 334 different grant processes ranging from one to six years in length. Efforts are currently underway in other states to standardize processes within a single entity. For example, the State of Pennsylvania Department of Education put its grant application process online in 1998. Just the development of the standardized application process for this department took two years and cost $2.5 million.

- There is currently no funding for a comprehensive study to be conducted by DIR, and EGTAW wants to move forward with its efforts. Since the Comptroller has not certified the $500,000 appropriated to DIR for the study, DIR can only provide limited assistance and information regarding the implementation of an electronic grants management system. DIR did contract with an independent consultant assuming that more information might be available from EGTAW that could be leveraged. With little of the traditional research for a system implementation completed to date and no funding for the study at this time, EGTAW and DIR agreed to proceed with a report, in an attempt to provide a near-term solution for grants management in the state.

- Current law requires state agencies to post most grant opportunities in the *Texas Register,* maintained by the Secretary of State. The law also requires that state agencies post all procurement opportunities on the Texas Marketplace Web site (www.marketplace.state.tx.us).

EGTAW and DIR concluded that to achieve the level of commitment necessary from participating grant-offering agencies and to perform the level of study required, a statewide mandate would probably be necessary. It will be difficult, if not impossible, to develop system specifications to implement a single, statewide system unless all agencies that manage grants participate. Agencies are not able to allocate the resources necessary for such an extensive effort without legislative funding and support. A legislatively supported mandate would need to allocate sufficient appropriations and additional FTEs to support the efforts of participating agencies.

On September 17, members of EGTAW and DIR agreed that, without sufficient resources to gather the appropriate information to study the costs and benefits of a fully integrated grants management system, the *Electronic Grants Management Report* would focus on a near-term solution to implement a searchable database.

EGTAW determined that grant-offering agencies and grant constituents will gain significant results from a solution that addresses the following external opportunities:

- Provide grant seekers a centralized resource to identify grant opportunities
- Provide grant seekers with a keyword search capability to search all grant opportunities available through the state of Texas
- Provide a central location for grant seekers to learn how to apply for a grant
- Provide a central location for grant seekers to identify eligibility requirements for a specific grant

Based on the work sessions and discussions with EGTAW members, the aforementioned problems/opportunities were identified and consensus was reached on the scope of the *Electronic Grants Management Report.* Collectively EGTAW and DIR agreed that without significant resources from the agencies and a comprehensive effort it will be difficult to map the various processes in each agency required to process each grant. Therefore, EGTAW and DIR determined that the scope of this report should address solutions that provide grant seekers with one central location where they can find grant opportunities, perform keyword searches to find grants, find out how to apply for grant opportunities, and determine eligibility requirements for a specific grant.

Workgroup members believed the greatest potential benefits for the grant-seeking community could be realized by establishing these scope boundaries, given the current statutory, financial, resource, and time constraints.

Recommendation for a Near-Term Solution

Based on the research information, analysis performed on grants management processes, and meetings held with members of EGTAW, the following recommendation is made:

Implement a centralized searchable database front-end solution for electronic grants management that will answer the questions for the grant seeker of how to find grants using keyword searches, how to apply for grants, and how to determine high-level eligibility requirements of the grant offering. If the grant seeker is interested in gaining more information than these three basic items, then a link to the appropriate site of the grant-providing agency to pursue the grant application process is provided. Access to this database should be made available through the TexasOnline portal to provide a one-stop access point for grant constituents seeking grant opportunities statewide. Specific hosting options for the database will need to be explored. In addition, published foundation directories should be analyzed and leveraged as a search tool for the grants management system front-end processing. Each agency will need to identify, document, and standardize specific information about its grant programs to reside in the central database to facilitate search capabilities regarding available opportunities, application information, and high-level eligibility requirements.

Costs and Benefits of the Near-Term Solution

Costs for the near-term solution are estimates and based on the research information described in this report. The objective of the near-term solution is to provide Texas residents a way to navigate through the vast stores of state agency grant information. This can be accomplished by developing an application that resides on the Internet and provides specific functionality. The following paragraphs describe the functionality and costs associated with developing a searchable and centralized Web-based grant application.

Functionality

In order to develop preliminary cost estimates, functionality has been defined for three types of users: prospective applicants, state agencies, and a Webmaster. The application envisioned for the near-term solution will provide the following functionality:

- Prospective applicants will be able to search for possible grant opportunities, download files, and e-mail and/or link to grant-providing agencies.
- State agencies will be able to submit downloadable files, grant opportunity content (text), keyword search and search criteria information, and links and e-mail information.
- A Webmaster will be able to maintain downloadable files, grant opportunity text, keyword search and search criteria information, and links and e-mail information

Figure 1, on the following page, depicts a high-level view of the functionality of the near-term solution.

Figure 1. Scope of the Near-Term Solution
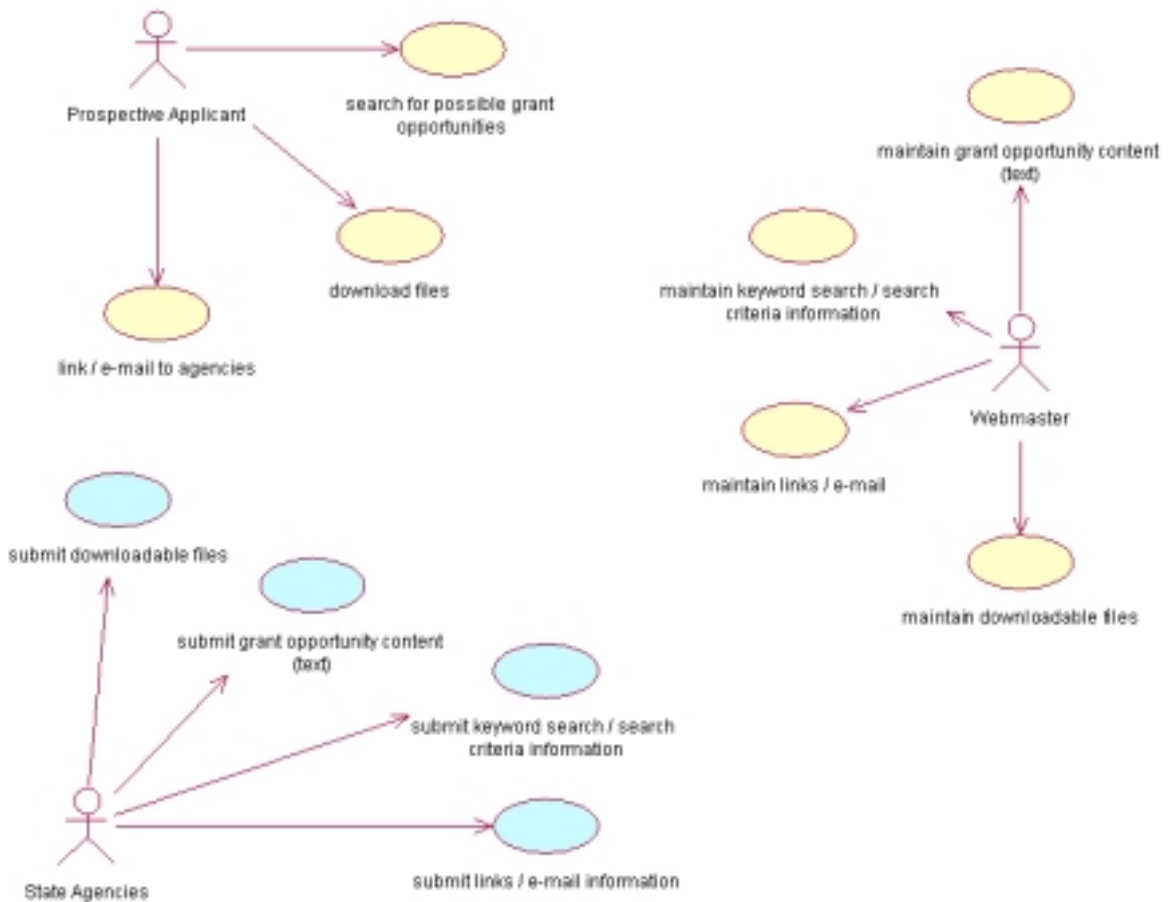
A prospective applicant represents any user of the system interested in information about grants available through the state of Texas. Figure 2 represents the flows of action and response between the user and the system, and is intended to end with a valuable result for the user.

Figure 2. Search for Possible Grant Opportunities
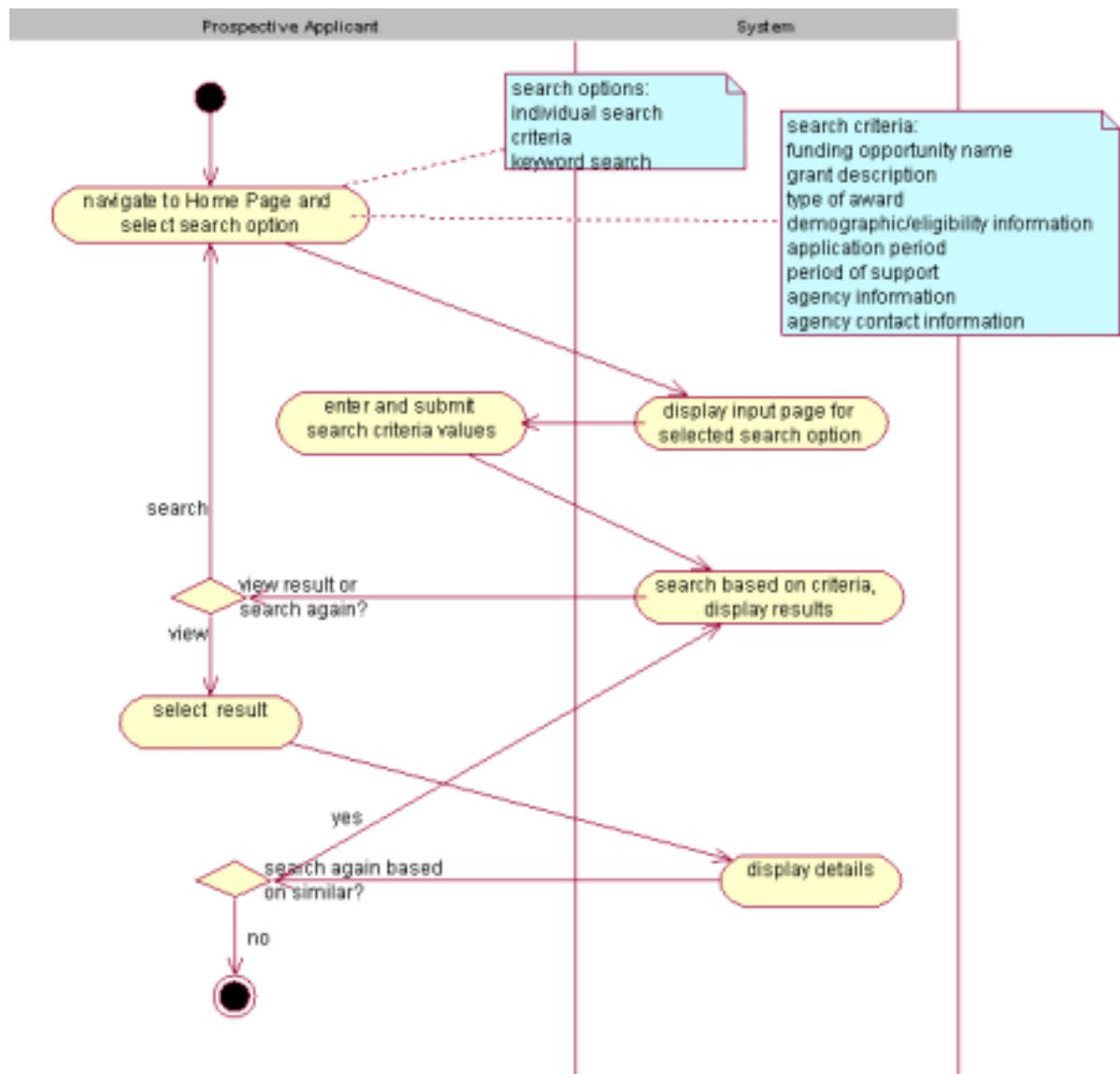
In order to effectively implement search capabilities, the content for the online grant application must be standardized. This can be achieved by soliciting grant descriptions from state agencies using a standardized questionnaire. Typically this would be accomplished during the requirements gathering phase of the application development process. The questionnaire can be designed to prompt the state agencies to identify keywords and search criteria for each grant submitted.

The application will be designed to have an input page for the prospective applicant to enter values for search criteria or keywords. The application will then search for possible grant opportunities based on search criteria, and present the prospective applicant with a list of results. The prospective applicant can select a result and the application will display the details for the grant selected. From this display, the prospective applicant can

link to the appropriate agency, an e-mail address for agency representatives, or any downloadable files associated with the grant. The prospective applicant can also search again for similar grants or exit the system.

Assumptions

The work effort and total cost for the project are based on the following scope:

- The project consists of the implementation of a Web site with information on 500 grants.

- The database will offer three types of search options:
    1. Keyword search criteria—adheres to industry standards
    2. Advanced search criteria—
        - Funding opportunity name
        - Grant description
        - Type of award
        - Demographic/eligibility information
        - Timing—application period, period of support
        - Agency information
        - Agency contact information
    3. Refined search—applicants will be able to search again (keyword or advanced) on an existing results list

- The database will be developed using a Microsoft platform and development tools.

- A tool set will be used to complete the requirements management, modeling, and testing.

- The hardware and the software for the development environment will be in place when the project charter is approved.

- The hardware and software for the production environment will to be in place before acceptance testing begins.

- The project will be completed in eight months, assuming that project staffing consists of one project manager, two analysts, and two developers for the life of the project. One additional analyst will be brought into the project for two weeks to complete the data dictionary.

- A deliverable approval method and schedule will be used. To complete the project in eight months, EGTAW must approve and sign-off on deliverables in a timely manner in order to adhere to the project schedule. Any changes in the number of review days will add hours and costs to the project.

- EGTAW members are the only participants in the requirements gathering and testing processes.

- The solution will reside on TexasOnline and leverage the existing technical environment including the hardware, software, and security infrastructure.

Costs

Cost estimates have been divided into initial development costs for software, hardware, and application development and costs for ongoing support. The following tables outline the cost estimates for the development of the near-term solution.

Initial Development Costs

Software	Cost	Qty	Total
Requirements Management, Modeling & Testing Tool	$30,000	1	$30,000
Visual Studio Enterprise	921	2	1,842
Visual Studio Enterprise CD	23	1	23
SQL Server 2000 Standard	468	1	468
SQL Server 2000 Standard CD	23	1	23
Processor License	3,357	1	3,357
Processor License CD	23	1	23
Visio 2002 Pro	283	1	283
Visio 2002 Pro CD	23	1	23
Microsoft Office	265	5	1,325
Microsoft Office CD	23	1	23
Microsoft Project	242	1	242
Microsoft Project CD	23	1	23
Software Subtotal			**$37,655**

Hardware	Cost	Qty	Total
Web Server	$3,589	2	$7,178
Monitor	179	2	358
Workstation	1,689	5	8,445
Disk Space	125	1	125
Hardware Subtotal			**$16,106**

Application Development Services	Unit Cost	Qty	Hours	Total
Project Manager	$125	1	832	$104,000
Lead Analyst	95	1	792	75,240
Analyst	75	1	784	58,800
Lead Developer	95	2	667	126,730
Application Development Services Subtotal				**$364,770**

Total Costs for Initial Development	Total
Software Subtotal	$37,655
Hardware Subtotal	$16,106
Application Development Services Subtotal	$364,770
Total Costs for Initial Development	**$418,531**

Ongoing Costs

Support Costs	Cost	Qty	Total
TexasOnline Annual Support (estimated*)	$50,000	1	$50,000
Total Costs for Ongoing Support			**$50,000**

*TexasOnline Annual Support includes costs for resources associated with infrastructure hardware, software, and telecommunications; hosting; operation, maintenance, security, and 24 x 7 availability.

Other Costs to Consider

- Time for state agency personnel to inventory grants
- Time for state agency personnel to gather all required information on grants to be included in the central data repository
- Time for EGTAW members to participate in requirements gathering and testing efforts of the new application
- Time for state agency personnel to learn new application
- Time for state agency personnel to perform initial load of grant information into grant database
- Time for state agency personnel to maintain grant database

Anticipated Cost Reductions

- Mailing costs for letters and overnight packages to reviewers
- Cost to hire temporary employees to sort, file, and compile mailings
- Paper usage
- Paper processing, copying, stapling, ordering of pages, binding booklets, etc.
- Time of agency personnel answering questions about grant opportunities
- Marketing and publishing grant opportunities

Near-Term Solution Benefits

- Utilization of proven technology
- Improve public relations
- Immediate feedback for grant constituents
- Central repository of information—therefore decreasing frustration levels and time of grant constituents
- Central repository of information for internal agency staff
- Ease of adding new grant opportunities and getting immediate exposure to public
- Ability to reach multiple users simultaneously 24 hours a day
- Simplify and improve efficiency of current processes
- Enhanced statistical information about grant constituents and opportunities

Recommendations for Achieving EGTAW's Vision

Without funding for DIR's full study, the only way to move forward is for EGTAW to continue with its efforts. Should EGTAW choose to continue without the benefit of results from a comprehensive study, DIR recommends the following actions for EGTAW's consideration:

- Continue the EGTAW effort to determine if a simplified, integrated, and efficient statewide Web-based common face for grant assistance programs can mutually benefit the people and government of Texas. This effort should focus on an analysis to identify similar grant processes performed by multiple grant-offering agencies and to identify agencies that have unique processes. An analysis should be performed to determine if the unique processes can be changed to conform to the majority, if legislative changes are necessary to gain conformance, or if the unique processes are required. Only after a full feasibility study is performed to analyze all grant-providing agencies' front-end and back-end processing requirements can a true assessment of the costs and benefits be ascertained. This level of study will probably require three to six months of effort from each agency.

- Add leadership and workgroup members with business process re-engineering, full software lifecycle development, and technical experience to EGTAW. Currently the workgroup has strong representation from the program side of grants processing, but is struggling with how to move forward from the concept stage through the analysis, design, development, and implementation phases.

- Interview the grant constituent population to gain their perspective on opportunities for process improvement. A thorough interview process with a variety of grant applicants such as nonprofit organizations, state and local governments, institutions of higher education, and individuals, should be performed to gather requirements from the end customer. In addition, during this process, the types of grants an applicant seeks should be documented. After the interviewing process is complete, opportunities for commonality among grant seekers can be identified. Determining if certain grant seekers apply for only one type of grant or if certain grant seekers apply for grants across the board will help facilitate the needs of a viable solution.

- Identify all agencies that currently have an integrated grants system and determine if any of the existing systems can be used as a model for other agencies. Several grant-offering agencies today have newly implemented and integrated grants management systems, such as TEA and TCA. After agencies have identified and inventoried their grant processes and opportunities, a review of the viable systems already developed

should be investigated. Opportunities to leverage existing applications may be available.

- In determining the costs and benefits of establishing a statewide electronic grants management system, an assessment of the PeopleSoft Grants Management module should be performed. Currently, there is an established customer base with eight Texas state agencies having implemented certain PeopleSoft Financial modules, with customizations and interfaces delivered by the Integrated Statewide Administrative System (ISAS) project, managed by the Comptroller. The modules implemented to date include General Ledger, Payables, Receivables, Purchasing, Budgets, Inventory, and Asset Management. Future plans include implementing the Billing, Projects, Expenses, and Grants Management modules. One of the disadvantages to utilizing the PeopleSoft solution is that the current Education and Government (E&G) version of the application does not meet the state's requirements for grants management and funds disbursement. The present version primarily was designed to support the needs of higher education, where grants are primarily managed internal to the university. Because of this, the ISAS project has not prioritized the analysis of the grants application. One approach that is being considered is to assess federal agencies that utilize the federal government's version of PeopleSoft Grants Management to determine if there is a better fit to the state's grants management needs.

- Consideration should be given to the provision for ongoing maintenance and records management that is required of a centralized electronic grants management system.

- All grant-providing agencies should develop "As Is" process models and the agencies should collectively build a "To Be" process model. The "As Is" model depicts the business processes of the current system. The "To Be" model depicts the business processes of the future, or proposed future, system. The future business processes are typically processes that have been "re-engineered" to facilitate the design of a more functional and useable system. By developing "As Is" models for the more than 35 grant-providing agencies, the common functionality among the systems can be identified as well as the gaps or differences that exist among the agencies' disparate systems. Therefore, when the "As Is" and "To Be" models are developed, the gaps/differences can be studied to determine if it is reasonable or feasible to integrate the grant systems being considered. Some of the existing documentation can be used for the modeling process.

- In combination with adding appropriate software professionals to EGTAW, it is also recommended that the workgroup implement a structured methodology for analyzing, developing, and implementing automated systems similar to the following:

1. **Concept or Pre-Launch Stage**
   1.1. Project Formulation
   1.2. Feasibility Studies
   1.3. Cost-Benefit Analysis
   1.4. Strategy design and approval
   1.5. Go/No Go Decision

2. **Project Initiation Stage**
   2.1. Identify Project Sponsor(s)
   2.2. Project Initiation Workshop
   2.3. Management Orientation
   2.4. Standards, Policies and Version Control
   2.5. Change Control Process
   2.6. Technical Architecture Baseline
   2.7. Project Management Orientation
   2.8. Risk Assessment Analysis
   2.9. Project Charter
   2.10. Project Development Plan

3. **Requirements Definition Stage**
   3.1. JRP Sessions
   3.2. JAD Sessions
   3.3. Requirements Traceability Matrix
   3.4. Business Object Model
   3.5. Use Case Model
   3.6. Critical Performance Model
   3.7. User Documentation Requirements
   3.8. Access/Security, Backup/Recovery, and Disaster Recovery Requirements

4. **Analysis and Design Stage**
   4.1. Software Architecture Document
   4.2. Software Architecture Test Model
   4.3. Software Architecture Test Evaluation Summary
   4.4. Design Model
   4.5. Data Dictionary
   4.6. Logical Data Model
   4.7. Physical Data Model
   4.8. Data Validation Design Document
   4.9. Legacy Data Conversion Plan
   4.10. System Test Plan
   4.11. User Interface Design Guidelines
   4.12. User Interface Design Document
   4.13. Report Design Guidelines
   4.14. Report Design Document
   4.15. User Documentation Plan
   4.16. Updated Technical Architecture Statement

5. **Implementation Stage**

6. **Testing/Validation Stage**

7. **Deployment Stage**

8. **Maintenance Stage**